

Application No. 10/760,650

REMARKS

The Applicant and the undersigned thank Examiner Aurora for her careful review of this application. Consideration of the present application is respectfully requested in light of the above amendments to the claims and in view of the following remarks. Claims 1-8 and 10-24 have been rejected. Applicant has amended Claims 1, 10, and 16. Applicant has canceled Claim 18. Upon entry of the amendments, Claims 1-8, 10-17, and 19-24 are pending in the subject application with none having been allowed. The independent claims for this application are Claims 1 and 16.

I. Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected Claims 1-6 under 35 U.S.C. § 103(a) as being unpatentable over Great Britain Patent Specification Publication No. 1,602,065 to Bailey ("*Bailey*") in view of U.S. Patent No. 6,802,373 to Dillenbeck, et al. ("*Dillenbeck*"). The Examiner rejected Claims 7, 8, 10, 14, and 15 under 35 U.S.C. § 103(a) as being unpatentable over *Bailey* in view of *Dillenbeck* and further in view of U.S. Patent No. 6,720,764 to Relton, et al. ("*Relton*"). The Examiner rejected Claims 11-13 under 35 U.S.C. § 103(a) as being unpatentable over *Bailey* in view of *Dillenbeck* and further in view of U.S. Patent No. 5,671,155 to Edens, et al. ("*Edens*"). The Examiner rejected Claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over *Bailey* in view of *Edens*. The Examiner rejected Claims 20-22 under 35 U.S.C. § 103(a) as being unpatentable over *Bailey* in view of *Edens* and further in view of *Dillenbeck*. The Examiner rejected Claims 18, 19, 23, and 24 under 35 U.S.C. § 103(a) as being unpatentable over *Bailey* in view of *Edens* and further in view of *Relton*. The Applicant respectfully offers the following remarks to traverse these pending rejections.

A. Independent Claim 1

The rejection of independent Claim 1 is respectfully traversed in view of the submitted amendments. It is respectfully submitted that the combination of *Bailey* and *Dillenbeck* fails to teach or suggest all of the recitations enumerated in Claim 1, as amended. Independent Claim 1 was amended to include the limitation that the wiper rubber is positioned around the exterior of the pipe segments adjacent to a wellhead.

The Examiner admits that *Bailey* fails to disclose that the magnetic field detection device is embedded into a wiper rubber. The Examiner then argues that *Dillenbeck* teaches embedding

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a magnetic field detection device in a wiper rubber. See Office Action, p. 2. As evidence, the Examiner directs Applicant's attention to column 4, lines 30-32 of *Dillenbeck*. However, *Dillenbeck* does not teach embedding the magnetic field detection device into a wiper rubber, but instead teaches that the "sensor may be housed within a rubber wiper plug, the rubber wiper plug being adjacent the fluid interface." *Dillenbeck*, col. 4:31-32.

The plug of *Dillenbeck* is not synonymous with a wiper rubber as the term is used by those of ordinary skill in the art of oilfield operations. The wiper rubber plug of *Dillenbeck*, as shown in Figure 6 as item (16), is a plunger positioned **inside a pipe segment down in the well**. The object of the wiper rubber plug in *Dillenbeck* is to separate the cement slurry (12) from the displacement mud (36). Further, *Dillenbeck* teaches that the use of this rubber wiper plug (22) will only achieve its desired effect during a conventional circulating cementing operation, thus teaching away from the general use of the plug during the piping removal or insertion process. See *Dillenbeck*, col. 8:15-18.

In addition, *Dillenbeck* does not teach a "magnetic field detection device" being embedded in the wiper rubber plug. Instead, *Dillenbeck* teaches that, "transponders 62 may be embedded in a plug 22 placed at the fluid interface 16 as shown in Fig. 6." *Dillenbeck*, col. 8:16-18. *Dillenbeck* goes on to teach that the transponder is not a magnetic field detection device, but is instead "a detectible device or material 60 compris[ing] a Radio Frequency Identification ("R.F.I.D.") device such as a transponder 62." *Dillenbeck*, col. 7:21-24. *Dillenbeck* goes on to distinguish the detectible device 60 from sensor 50. *Dillenbeck*, col. 7:19-21. Thus, in *Dillenbeck*, it is the item being sensed, the transponder 62, and not the detection device as claimed in amended independent Claim 1 that can be molded into rubber.

For further clarification, independent Claim 1 has been amended to clarify the difference in positioning between the wiper rubber of Claim 1 and the wiper rubber plug of *Dillenbeck*, however it should now be obvious that the use and function of the two are significantly different for the reasons discussed above as well. Therefore, the wiper rubber plug of *Dillenbeck* is not analogous to the wiper rubber of amended Claim 1 and *Dillenbeck* does not teach or suggest embedding the magnetic field detection device into a wiper rubber as described in amended Claim 1. Thus, Applicant has shown that *Bailey*, in combination with *Dillenbeck*, fails to teach or suggest all of the recitations enumerated in amended Claim 1. Accordingly, reconsideration and withdrawal of the rejection of amended Claim 1 is respectfully requested.

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B. Independent Claim 16

The rejection of independent Claim 16 is respectfully traversed in view of the submitted amendments. It is respectfully submitted that the combination of *Bailey*, *Edens*, and *Relton* fails to teach or suggest all of the recitations enumerated in Claim 16, as amended. Independent Claim 16 was amended to include the limitation of dependent Claim 18, that the pipe segment count is fed into a computer system.

The Examiner admits that both *Bailey* and *Edens* fail to teach or suggest that the pipe segment count is fed into a computer. In order to show this limitation, the Examiner argues that *Relton* "discloses feeding a pipe segment count into a computer system." See *Office Action* at p. 7. To buttress this argument, the Examiner points Applicant's attention to col. 8, lines 6-16 of *Relton*. However, neither here, nor in any other part of the cited patent does *Relton* disclose feeding the pipe segment count into a computer as required by amended Claim 16.

In the portion of *Relton* cited by the Examiner, *Relton* teaches that a computer may evaluate **sensor information** using waveform analysis. During this waveform analysis the computer can recognize characteristic waveforms that signal a tubing string, an area without any tubing strings, or a tool joint. *Relton*, col. 8:6-16. To determine this the computer "evaluates the readings transmitted by the sensors 30 and compares them to **predetermined values** expected for the presence of tubing strings 95 and tool joints 90 and to **predetermined values** when no tubing strings 95 or tool joints 90 are present. Such comparisons are selected to indicate to the computer 51 whether a tool joint 90 or tubing string 95 is present, or the initial presence of the tubing string 95 in the nonmagnetic cylindrical spool 110 or when the last of the tubing string 95 exits the nonmagnetic cylindrical spool 110." *Relton*, col. 7:59-8:5.

Figure 4 of *Relton* describes an exemplary waveform analysis as conducted by the computer of *Relton*. *Relton*, col. 8:23-26. As can be plainly seen from the display in Figure 4, *Relton* does not teach feeding a pipe segment count into the computer. Instead, the computer of *Relton* receives the **raw data from the sensor** and tries to determine if there is a pipe segment or a tool joint passing in front of the sensor. *Relton* does not teach or suggest taking the additional step of maintaining a running count of pipe segments detected as described in amended independent Claim 16. Thus, Applicant has shown that *Bailey*, in combination with *Edens* and *Relton* fails to teach or suggest all of the recitations enumerated in amended Claim 16.

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Accordingly, reconsideration and withdrawal of the rejection of amended Claim 16 is respectfully requested.

II. The Inventions of Dependent Claims 2-8, 10-15, 17 and 19-24 are Distinguishable from the Cited Art

The Applicant respectfully submits that the above-identified dependent claims are allowable because the independent claims from which they depend, amended Claims 1 and 16, are patentable over the cited references. The Applicant also respectfully traverses the Examiner's assertions about these claims and submit that the recitations of these dependent claims are of patentable significance. While Applicant has amended dependent Claim 10, this amendments was made only to correct and ensure proper antecedent basis and consistent terminology with amended Claim 1. Applicant has not addressed each specific rejection of the independent and dependent claims because Applicant submits that the independent claims are allowable over the documents of record, as discussed above. Applicant has not acquiesced to any such rejection and reserves the right to address the patentability of any additional claim features in the future. The Applicant respectfully requests that the Examiner reconsider and withdraw the pending rejection of Claims 2-8, 10-15, 17 and 19-24.

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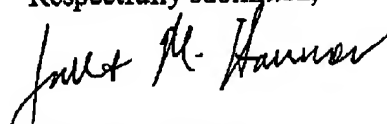
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CONCLUSION

The foregoing is submitted as a full and complete response to the Official Action mailed on January 13, 2006. The Applicant has amended the claims and has submitted remarks to traverse the rejections of pending Claims 1-8, 10-17, and 19-24. Applicant has shown above that Claims 1-8, 10-17, and 19-24 are allowable over the art cited by the Examiner and respectfully request that the Examiner withdraw all pending rejections and objections to Claims 1-8, 10-17, and 19-24.

If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (404) 572-4691 to discuss same is respectfully requested.

Respectfully submitted,


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